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Cat. No. 32-1166

OWNER'S MANUAL

Please read before using this equipment.

CDG Karaoke System

OPTIMUS®

WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.

This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

The system is made and tested to meet exacting safety standards. It meets FCC requirements and complies with safety performance standards of the U.S. Department of Health and Human Services.

Warnings:

- The system employs a laser light beam. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.
- The use of controls, adjustments, or procedures other than those specified herein might result in hazardous radiation exposure.

Note: Most material on compact discs and prerecorded tapes is copyrighted. Unauthorized duplication of copyrighted material is a violation of the copyright laws of most countries and such duplication may result in fines and/or imprisonment. Note, however, that in the United States, it is not a violation of U.S. copyright laws for a consumer to use an audio recording device to duplicate musical recordings for noncommercial (personal) use.

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FEATURES

Your Optimus CDG Karaoke System is one of the most versatile karaoke systems available. It lets you be the "star" as you sing along with your favorite recordings on a CD, a CDG (a compact disc with a graphic track), a cassette tape, or a video tape, and hear your voice with the music through the powerful built-in speaker.

The karaoke system's CDG capability is the latest advancement in karaoke technology. It lets you connect the karaoke system to a TV or monitor and read the lyrics of your favorite tunes as they scroll by in front of a still video graphic, such as a picture or drawing related to the music.

You can sing along without video graphics using special karaoke audio cassette tapes (such as the one we have included to get you started) that let you balance the volume of the original singer's voice and the music tracks. Or, you can sing along with a regular prerecorded cassette tape or CD (not supplied).

You can also connect another audio source to the karaoke system, such as a stereo VCR, and play a karaoke video cassette (not supplied).

Note: Additional karaoke CDs, audio cassettes, and video cassettes are available by special order through your local RadioShack store.

Your karaoke system's features include:

Front Loading CD/CDG Player — lets you play regular or karaoke CDs, or special CDGs so you can experience digital images — the latest in karaoke fun! Plus, the player's 16 bit D/A converter (digital-to-analog conversion circuitry which accurately reproduces all sound levels with virtually no distortion) and 8 times oversampling produce high quality sound.

Dual-Cassette Decks — let you play two cassette tapes in a row, dub from one tape to another, or sing with one tape while recording on the other.

8-Watt Per Channel Amp— lets you singalong and listen through the karaoke system's 5-inch woofer and 2-inch tweeter.

Adjustable Echo Control — lets you add an echo to the sound for a concert hall effect.

Tape Speed Control — lets you adjust the tape speed to match your voice pitch.

Supplied Karaoke CDG and Audio Tape — lets you sing along with the music and adjust the volume of the prerecorded voice and music.

Audio Channel — lets you choose between singing along to the music with or without the original singer's voice or with a stereo effect.

Vocal Changer — lets you change the volume of the original singer's prerecorded voice with your voice when you use a karaoke tape, so you can sing solo.

Auto-Stop — automatically stops when it reaches the end of a cassette tape, to protect the tape and tape-handling parts.

20-Track Programmable Memory — lets you pace your own performance by programming up to 20 CD tracks in the order you want to hear them.

8-Watt External Speaker Jack — so you can connect an external speaker for stereo effects.

Auxiliary Input Jacks — so you can connect to another audio source, such as a stereo VCR or another CD player.

Auxiliary Output Jacks — for connecting another audio component, such as an equalizer/booster or a PA system.

Automatic Search — lets you quickly locate and play any track on the loaded CD/CDG.

Audible Search — lets you quickly locate a particular section of track while it is playing a CD.

Intro Scan — lets you play the first 10 seconds of each track on a CD/CDG to help you locate a certain track.

Repeat Play — repeats a single track or a programmed sequence of tracks.

Random Play — lets you play all the tracks in random order.

Headphones Jack — lets you connect headphones to your karaoke for private listening.

Dual Microphone Jacks — let you use the supplied microphone and an optional microphone simultaneously to sing duets or for lead and background vocals.

Recording — lets you record your voice as you sing along with a tape or CD/CDG or an external audio source connected to the system.

Tone Control — lets you customize the sound you hear through the speaker.

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CONNECTIONS

Caution: To avoid electrical shock, do not connect the system to AC power until all other connections are complete.

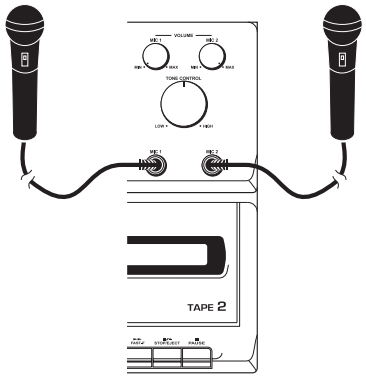
CONNECTING MICROPHONES

The system has two microphone jacks so you can use the supplied microphone to sing along to your favorite recordings, and connect an additional microphone (not supplied) for duets or lead and background vocals.

For the best performance, the additional microphone should be a unidirectional 600-ohm dynamic microphone with a 1/4-inch (6.35-mm) plug and an ON/OFF switch. Your local RadioShack store has a wide selection of microphones.

Before you connect a microphone, always turn **MIC VOL 1** to **MIN** on **MIC 1,** (and **MIC VOL 2** if you are connecting an additional microphone).

If you are connecting only one microphone, plug it into **MIC 1**. If you are adding a second microphone, plug it into **MIC 2**.



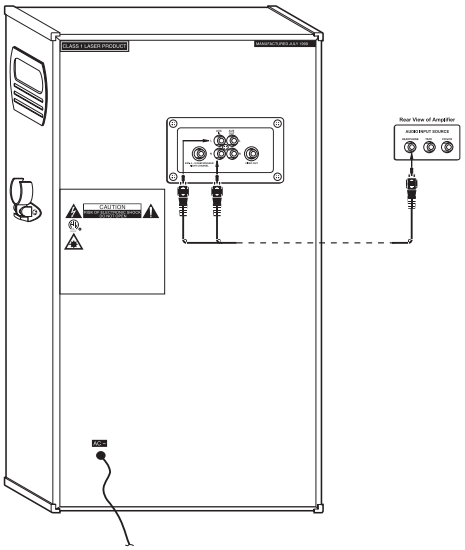
The system has a built-in microphone holder on the right side of the system. To use the holder, pull it down from the side of the system, and place the microphone in the holder's grip.

CONNECTING OTHER AUDIO COMPONENTS

You can connect an external audio source or component to the karaoke system, so you can sing along with other audio formats or videos, or hear the karaoke's sound from another speaker or a PA system. To make the connection, you need optional audio patch cables (such as Cat. No. 42-2352).

Connecting an External Audio Source for Input

You can connect another audio source, such as a stereo VCR or another CD player, so you can sing along with the audio source's sound. Connect the source's stereo audio output jacks to the system's **AUX IN R** and **L** jacks.



Note: If your audio source does not have AUX OUT R and L jacks, but has only a headphone or line out jack (such as on a portable tape or CD player), use a shielded Y-adapter cord with phono jacks on each end (such as Cat. No. 42-2475). Connect the single-plug end to the audio source's headphone or line out jack, and connect the other end's two phono plugs to the system's **AUX IN R** and **L** jacks.

Connecting an External Audio Component for Output

You can broadcast the karaoke system's sound through an external audio component such as a PA system amplifier. Connect the external audio component's audio input jacks to the karaoke system's **AUX OUT R** and **L** jacks.

Connecting an External Speaker

You can connect an external 8 to15-watt stereo speaker with 4-8 ohm impedance to the system for a stereo effect. Plug the speaker's phono plug into **4-8 OHM SPEAKER** / **RIGHT CHANNEL** on the system.

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CONNECTING TO A TV

You can connect the CD/CDG karaoke system to a TV or monitor and see the words and images produced by a special karaoke video cassette or CD/CDG. Plug one end of the supplied cable into **VIDEO OUT** and the other end into your TV's video in jack.

Note: For TVs that do not have an audio/video input jack, use a video RF modulator (such as Cat. No. 15-1283). Connect the RF modulator to **VIDEO OUT** and to the TV's 75-Ohm VHF input terminal, following the instructions in the modulator's owner's manual.

CONNECTING POWER

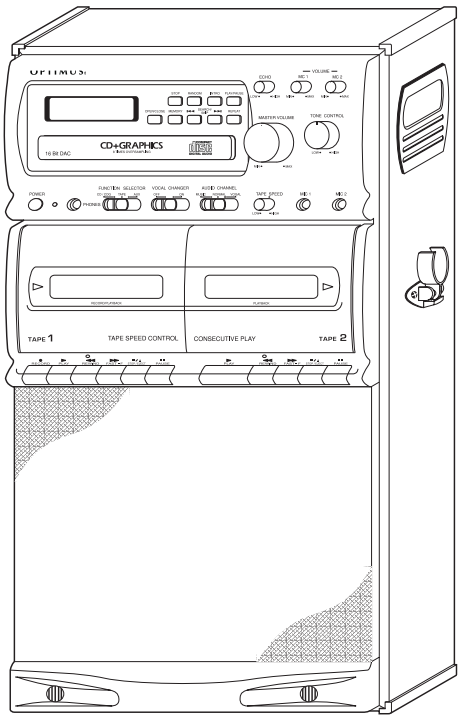
When you have made all other connections, plug your system's power cord into a standard AC outlet.

Caution: The supplied power cord has a polarized plug that fits into the outlet only one way. If the plug does not fit properly, turn it over and try again. Do not force it.

SINGING ALONG/QUICK START

The instructions in this section provide a quick reference to help you get started singing along with your karaoke CD/CDG system.

SINGING WITH A CD/CDG OR A CASSETTE TAPE



Follow these steps to sing along with a CD/CDG or a cassette tape (such as those supplied).

1. Press **POWER** to turn on the system. The POWER indicator lights.
2. *To sing along with a CD/CDG*, press **OPEN/CLOSE** to open the CD compartment and load a CD/CDG. Press **OPEN/CLOSE** again to close the CD compartment.

   To sing along with a pre-recorded tape, press **STOP/EJECT** ■/⏏ on TAPE 1 or TAPE 2 and load a cassette. Shut the compartment door to close it.
3. Set **FUNCTION SELECTOR** to **CD/CDG** or **TAPE**.
4. Set **AUDIO CHANNEL** and **VOCAL CHANGER** for the desired effects.

   Set **AUDIO CHANNEL** to **NORMAL** to enjoy a stereo effect with the music.

   Set **AUDIO CHANNEL** to **MUSIC** to enjoy the music without the original singer's voice, so you can sing alone.

   Set **AUDIO CHANNEL** to **VOCAL** to enjoy both the original singer's voice and music. You can sing along with the original singer's voice and music.

   Set **VOCAL CHANGER** to **OFF** to enjoy both the music and original singer's voice.

   Set **VOCAL CHANGER** to **ON** to enjoy both the music and original singer's voice. Whenever you sing along, the original singer's voice is cancelled. If you stop singing, the original singer's voice returns.

   Note: With a regular (non-karaoke) prerecorded cassette tape, you cannot adjust the volume of the prerecorded original singer's voice in relation to the music.
5. Press **PLAY/PAUSE**, or **PLAY** ▶ on the tape deck you are using, to start play.

6. Adjust the sound with **MASTER VOLUME**. See “Adjusting the Sound” on Page 12.
7. Set each connected microphone’s **ON/OFF** switch to **ON**. Sing directly into the microphone along with the music.
8. Use **MIC VOL 1** and/or **MIC VOL 2** to adjust the volume of each microphone.
9. Adjust **ECHO** and **TONE CONTROL** for the desired reverberation and pitch. See “Adjusting the Sound” on Page 12.
10. Adjust **TAPE SPEED (**if you are playing a tape). See “Adjusting the Sound” on Page 12.
11. To stop a tape, press **STOP/EJECT** ■/⏏ on the deck you are using. Press **STOP/EJECT** ■/⏏ again to open the cassette compartment door and remove the tape.
12. Set each microphone’s **ON/OFF** switch to **OFF**, then press **POWER** to turn off the system. The POWER indicator turns off.

WITH ANOTHER AUDIO SOURCE

If you connect another audio source, follow these steps to sing along with that audio source.

1. Set **FUNCTION SELECTOR** to **AUX**.
2. Press **POWER** to turn on the system. The POWER indicator lights.
3. Turn on the audio source.
4. Adjust the sound with the controls explained in “Adjusting the Sound” on Page 12.
5. Set each connected microphone’s **ON/OFF** switch to **ON**. Sing directly into the microphone along with the music.
6. Use **MIC VOL 1** and/or **MIC VOL 2** to adjust your voice’s volume.
7. When you finish, set each microphone’s ON/OFF switch to OFF, press **POWER** to turn off the system, then turn off the audio source.

THROUGH ANOTHER AUDIO COMPONENT

If you connected another audio component, follow the steps in “With Another Audio Source” so you can hear your voice and music through another component. Except in Step 3, turn on the audio component, and be sure to turn it off (Step 7) when you finish.

SYSTEM OPERATION

ADJUSTING THE SOUND

Use these controls to get the system's sound just right.

MASTER VOLUME — Control the volume of the system's speaker by turning **MASTER VOLUME** toward **MIN** or **MAX**. The volume remains set until you readjust it.

TAPE SPEED — To slow down or speed up the pace of the music as you sing along, turn **TAPE SPEED** toward **LOW** or **HIGH**. For normal tape speed, leave it set to the middle position.

ECHO — You can adjust **ECHO** to add an echo effect to your voice while you sing. Turn and hold **ECHO** toward **LOW** or **HIGH** for the desired effect and release.

TONE CONTROL — You can use **TONE CONTROL** to customize the sound you hear through the speaker. Turn **TONE CONTROL** toward **LOW** for a low and deep sound or **HIGH** for a high and sharp sound.

USING HEADPHONES

You can use headphones (not supplied) to listen in privacy. Insert the headphones' $^1/_8$-inch plug into the **PHONES** jack.

Note: Connecting headphones automatically disconnects the speakers.

Your local Radioshack store sells a wide selection of headphones.

LISTENING SAFELY

To protect your hearing, follow these guidelines when you use headphones.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.
- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

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CD/CDG PLAYER OPERATION

PLAYING A CD/CDG

1. Press **POWER** to turn on the system. The POWER indicator lights.
2. Set **FUNCTION SELECTOR** to **CD/CDG.**
3. Press **OPEN/CLOSE** to open the CD/CDG compartment.
4. Place a CD/CDG in the compartment tray label side up.
5. Press **OPEN/CLOSE** again to close the CD/CDG compartment. You see the CD/CDG's total number of tracks and total playing time.
6. Press **PLAY/PAUSE**. The CD/CDG begins to play from Track 1 and the track's elapsed play time appears.
7. Adjust the sound with the controls explained in "Adjusting the Sound" on Page 12.

   Note: To sing along, see "Singing Along/Quick Start" on Page 10.
8. The system automatically stops play at the end of the CD/CDG's last track. To stop it sooner press **STOP**. The CD/CDG's total number of tracks and playing time appear.

Notes:

- To temporarily stop play, press **PLAY/PAUSE**. The track number appears and the elapsed time stops and flashes. To resume play, press **PLAY/PAUSE** again.
- During playback, if the system is subjected to a sudden shock or jolt, the speed of rotation might change, or some noise might be produced. This is not a malfunction.

SPECIAL CD/CDG PLAYER FEATURES

Automatic Search

The automatic search feature lets you quickly locate the beginning of any track on a CD/CDG, including the track currently playing. You can use automatic search when a CD/CDG is playing or stopped.

If a CD/CDG is playing:

- *To skip back to the beginning of the current track*, press **SEARCH/SKIP** (I◄◄) once.
- *To search backward to the beginning of the desired track*, repeatedly press **SEARCH/SKIP** (I◄◄).
- *To search forward to the beginning of the desired track*, repeatedly press **SEARCH/SKIP** (►►I).

If the CD/CDG is stopped or paused, repeatedly press **SEARCH/SKIP** (I◄◄) or (►►I) until the system displays the number of the track you want to play, then press **PLAY/PAUSE**. The CD/CDG player starts playing the selected track.

Audible Search

Note: Audible search does not work on CDGs.

Hold down **SEARCH/SKIP** (|◄◄) or (►►|) to search rapidly forward or backward during play. The CD plays rapidly, and you hear the sound at a high speed and low volume.

Release the button to resume normal play.

Intro Scan

You can set the system to play the first 10 seconds of each track on the CD/CDG so you can quickly find the one you want.

To begin scanning, press **INTRO**. **INTRO** appears on the display and the CD/CDG player plays the first 10 seconds of each track, beginning with the first track, then stops.

You can also use repeat play and search during intro play.

To cancel intro play during or after play, press **INTRO**. If you cancel INTRO scan during play, the CD/CDG player begins normal play.

Repeat Play

You can repeat a single track, all the tracks on a CD/CDG, or an entire programmed sequence. See “Programmed Play” on Page 15.

To continuously repeat a single track, press **REPEAT** once while the desired track is playing. **REPEAT 1** appears.

To continuously repeat all tracks on the CD/CDG, repeatedly press **REPEAT** until **REPEAT ALL** appears.

To repeat a programmed sequence, repeatedly press **REPEAT** until **REPEAT ALL** appears with **MEMORY** on the display.

To cancel repeat play during or after play, repeatedly press **REPEAT** until **REPEAT** disappears. If you cancel repeat play during play, the CD/CDG player resumes normal play.

Random Play

You can use the system to play all tracks on a loaded CD/CDG in a random order.

1. To set random play while a CD is stopped or in play, press **RANDOM**. **RANDOM** and the first randomly selected track number appear on the display.
2. Press **PLAY/PAUSE**, [ ] briefly flashes.
3. The track begins to play, and the system plays all the tracks in random order.
4. When the system reaches the end of the last track in the random order, it automatically stops.

Notes:

- To replay the current track, press **SEARCH/SKIP** (|◀◀).
- To play the next random track, press **SEARCH/SKIP** (▶▶|).

To stop the CD player at any time during random play, press **STOP**. The CD/CDG's total number of tracks and playing time appear. When you press **PLAY/PAUSE** again, random play resumes.

To cancel random play and resume normal play, press **RANDOM** again. **RANDOM** disappears and the CD/CDG player resumes normal play.

PROGRAMMED PLAY

You can program the CD/CDG player during normal or karaoke mode to play up to 20 tracks in any order you choose, and you can program the same track to play more than once.

Programming and Playing a Sequence of Tracks

1. Repeatedly press **STOP** until the system displays the total number of tracks and the total playing time.
2. Press **MEMORY**.

   MEMORY flashes at the top of the display along with the track number. The program number also appears.

   Note: **MEMORY** remains on the top left corner of the display until you erase the programmed sequence.
3. Press **SEARCH/SKIP** (|◀◀) or (▶▶|) to select the desired track.
4. Press **MEMORY** to store the selected track. The cumulative time from the programmed tracks appears, while **MEMORY** and the track number continue to flash.

   Note: If you enter the wrong track number, you can erase the sequence and start over. See "Erasing a Programmed Sequence" on Page 16.
5. Repeat Steps 3 and 4 to program up to 20 tracks.

   Note: You cannot store more than 20 tracks. If you try to store a 21st track, the system replaces the first track stored, and the total number of tracks and the total play time appear on the display. Also, any additional tracks you try to store will replace the next successive track.
6. Press **PLAY/PAUSE** to play the programmed tracks. The first track number appears on the display with the elapsed time of the track in play.

Notes:

- You cannot use random play to play a programmed sequence.
- You can repeat or search through programmed tracks. To repeat the programmed sequence, see "Repeat Play" on Page 14.

7. Programmed play automatically stops at the end of the last programmed track. To stop the CD/CDG player at any time during programmed play, press **STOP**. The CD/CDG's total number of tracks and playing time appear.

Reviewing/Replacing a Programmed Sequence

While play is stopped, repeatedly press **MEMORY** to review the programmed sequence.

To replace a programmed track, press **MEMORY** until the position number of the track you want to replace appears. Then repeat Steps 3 and 4 to select and store the new track.

Erasing a Programmed Sequence

You can do any of the following to erase a programmed sequence:

- Press **STOP** and **MEMORY** at the same time when the CD/CDG player stops.
- Press **OPEN/CLOSE** before or after programmed play.
- Set **FUNCTION SELECTOR** to **TAPE** and then back to **CD**.

CD/CDG CARE TIPS

Although a CD/CDG is very durable, you should handle it with care. We recommend the following precautions:

- Keep the CD/CDG in its protective case or sleeve when you are not playing it.
- Keep the CD/CDG clean. Your local RadioShack store sells a suitable CD cleaner kit.
- Do not write on either side of the CD/CDG, particularly the non-label side.
- Do not store CD/CDGs in high-temperature, high-humidity locations. They might warp.
- Keep CD/CDGs dry. A water drop can act as a lens and affect the laser beam's focus.
- Always handle a CD/CDG by the edges to avoid fingerprints. Fingerprints and scratches on the CD/CDG's surface can prevent the laser beam from correctly reading the digital information.
- If a CD/CDG skips during play, it might be scratched. Your local RadioShack store sells a Scratch'n Fix kit (Cat. No. 42-127) that might stop the skip. Also, see "Troubleshooting" on Page 24.

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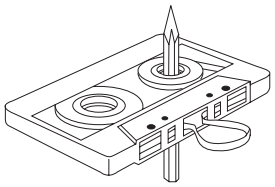
CASSETTE DECK OPERATION

You can play a cassette tape in either cassette deck, and you can record tapes in TAPE 1.

LOADING A TAPE

1. Take up any slack in the tape by turning the cassette's hub with a pencil or your finger. If you do not remove excess slack, the tape might become tangled in the record/playback mechanism. Avoid touching the tape.



2. Press **STOP/EJECT** ■/⏏ to open the cassette compartment.
3. Load the cassette tape with its open edge facing down, the side you want to play or record on facing out, and the full reel to the left.
4. Close the compartment door.

PLAYING A TAPE

You can play a cassette tape in either TAPE 1 or TAPE 2, or you can load cassette tapes in both decks and play one side of each consecutively.

Warning: To protect your hearing, set **MASTER VOLUME** to **MIN** before you play a cassette tape.

Normal Play

Follow these steps to play a cassette tape in TAPE 1 or TAPE 2.

1. Load a cassette tape in TAPE 1 or TAPE 2.
2. Press **POWER** to turn on the system. The **POWER** indicator lights.
3. Set **FUNCTION SELECTOR** to **TAPE**.
4. Press **PLAY** ▶ on the deck where the tape is loaded.
5. Adjust the sound with the controls explained in "Adjusting the Sound" on Page 12.
6. Press **STOP/EJECT** ■/⏏ to stop the tape. Press **STOP/EJECT** ■/⏏ again to open the cassette compartment, then remove the cassette tape.

Turn the tape over and press **PLAY** ▶ to play the other side.

Notes:

- To temporarily stop play, press **PAUSE** ❚❚. Press **PAUSE** ❚❚ again to resume play.
- To rapidly wind the tape forward or backward, press **FAST-F** ▶▶ or **REWIND** ◀◀. Press **STOP/EJECT** ■/⏏ when you reach the desired section.

Consecutive Play

Follow these steps to play one side of a tape loaded in TAPE 2, then play one side of tape loaded in TAPE 1.

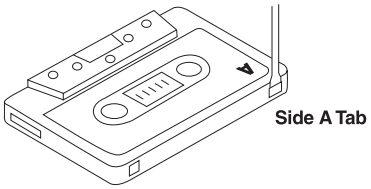
1. Load a cassette tape in TAPE 1 and TAPE 2.
2. Press **POWER** to turn on the system. The **POWER** indicator lights.
3. Set **FUNCTION SELECTOR** to **TAPE**.
4. Press **PLAY** ▶ on TAPE 2.
5. Press **PAUSE** ❚❚ then **PLAY** ▶ on TAPE 1.

The tape in TAPE 2 plays to the side's end. Then PAUSE releases on TAPE 1 and it plays to its side's end.

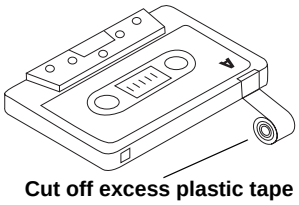
TAPE CARE TIPS

Preventing Accidental Erasure

Most cassette tapes have two erase-protection tabs — one for each side. To protect a recording from accidentally being recorded over or erased, use a screwdriver to remove one or both of the cassette tape's erase-protection tabs.



If you want to record on a tape side after you have removed the erase-protection tab, place a piece of strong plastic tape over that side's erase-protection hole.



Notes:

- Be sure you cover only the hole that was originally covered by the erase-protection tab.
- Removing the erase-protection tabs does not prevent a bulk eraser from erasing a cassette tape.

Erasing a Cassette Tape

If you no longer want a recording, you can record over it or erase it.

To erase a previously recorded section of a tape, simply record over it.

To erase the entire cassette tape, record silence by setting **FUNCTION SELECTOR** to **TAPE** and recording with no tape in TAPE 2.

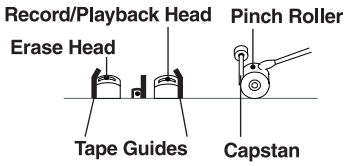
You can quickly erase both sides of a cassette tape using a bulk tape eraser (such as Cat. No. 44-232), available at your local RadioShack store.

Cleaning the Tape-Handling Parts

Dirt, dust or particles of the tape's coating can accumulate on the tape heads and other parts that the tape touches. This can greatly reduce the performance of the cassette player. After every 20 hours of tape player operation, use a cassette deck cleaning kit (Cat. No. 44-1202) or follow these steps to clean the tape-handling parts.

1. Disconnect the AC power cord.
2. Open the cassette compartment doors on TAPE 1 and TAPE 2.
3. Press **PLAY** ► on TAPE 1 and TAPE 2 to expose the tape-handling parts.

4. Use a cotton swab dipped in denatured alcohol or tape head cleaning solution to clean the record/play heads, pinch rollers, capstans, tape guides, and erase heads.



5. When you finish cleaning, press **STOP/EJECT ■/⏏** on TAPE 1 and TAPE 2 and close the cassette compartment doors. Then reconnect AC power.

Your local RadioShack store sells a full line of cassette deck cleaning supplies.

Restoring Tape Tension and Sound Quality

After you play a cassette tape several times, the tape might become tightly wound on the reels. This can cause playback sound quality to deteriorate.

To restore the sound quality, fast-forward the tape from the beginning to the end of one side, then completely rewind it. Then loosen the tape reels by gently tapping each side of the cassette's outer shell on a flat surface.

Caution: Be careful not to damage the cassette when tapping it. Do not touch the exposed tape or allow any sharp objects near the cassette.

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USING OPTIONAL COMPONENTS

Warning: To protect your hearing and prevent damage to the karaoke system, an audio source and/or an audio component, always set their volume controls to the lowest settings before turning them on.

LISTENING TO ANOTHER AUDIO SOURCE

If you connected another audio source, follow these steps to listen to that source through your karaoke system.

1. Set **FUNCTION SELECTOR** to **AUX**.
2. Press **POWER** to turn on the system. The POWER indicator lights.
3. Turn on the audio source.
4. Adjust the sound with the controls explained in “Adjusting the Sound” on Page 12.
5. To turn off the system, press **POWER**. The POWER indicator turns off. Then turn off the audio source.

LISTENING THROUGH ANOTHER AUDIO COMPONENT

If you connected an audio component (such as PA system) follow these steps to listen to the karaoke system’s sound through that component.

1. Set **FUNCTION SELECTOR** to **AUX**.
2. Press **POWER** to turn on the system. The POWER indicator lights.
3. Turn on the audio component.
4. Play a cassette, CD, or CDG in the karaoke system.
5. Adjust the sound with the controls explained in “Adjusting the Sound” on Page 12.
6. To turn off the system, press **POWER**. The POWER indicator turns off. Then turn off the audio component.

RECORDING A CASSETTE TAPE

You can become a recording star! The system lets you record your voice on a blank or reusable tape as you sing along with a special karaoke cassette tape, video tape, CD/CDG or other audio source. You can also record from an external audio source, or dub from one cassette tape to another.

Recording Tips:

- Tape quality greatly affects the quality of the recording. We recommend RadioShack Supertape Extended Range or Low-Noise Type 1 tape. We do not recommend long-play cassette tapes, such as C-120s, because they are thin and can easily tangle in the cassette mechanism. For low-noise, wide-range recordings, use normal-bias tape.
- Before recording, be sure the tape you are using has its erase-protection tabs in place. See "Preventing Accidental Erasure" on Page 19.
- Recording automatically stops when the tape in TAPE 1 reaches the end. To record on the other side, turn over the tape.

RECORDING YOUR VOICE WITH MUSIC

Follow these steps to record your voice along with music from a tape in TAPE 2, a CD/CDG, or an audio source connected to the system's **AUX IN** jacks.

1. Load a blank tape, or one that you want to record over, into TAPE 1, with the side you want to record on facing out, and the full reel to the left.
2. Follow Steps 1–11 in "Singing with a CD/CDG or a Cassette Tape" on Page 10 or Steps 1–6 in "With Another Audio Source" on Page 11.
3. Press **RECORD** ● on TAPE 1 to begin recording. **RECORD** ● and **PLAY** ► both lock down.

   Note: Press **PAUSE** ❚❚ on TAPE 1 to temporarily stop recording. Press **PAUSE** ❚❚ again to resume recording.
4. Press **STOP/EJECT** ■/⏏ on TAPE 1 to stop recording. **RECORD** ● and **PLAY** ► release.
5. Press **STOP/EJECT** ■/⏏ on TAPE 2 or stop the audio source.

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DUBBING A CASSETTE TAPE

You can copy any cassette tape on the karaoke system's dual cassette decks using a source tape with the music or sound you want to copy and a blank or reusable tape to record on.

Follow these steps to copy from one cassette tape to another.

1. Set **FUNCTION SELECTOR** to **TAPE**.
2. Press **POWER** to turn on the system. The POWER indicator lights.
3. Load the cassette you want to copy into TAPE 2 with the side you want to record from facing out.
4. Load a blank cassette (or one you want to record over) into TAPE 1 with the side you want to record on facing out.
5. Press **PAUSE** ▮▮ then **RECORD** ● on TAPE 1. Pause then **RECORD** ● and **PLAY** ► both lock down.
6. Press **PLAY** ► on TAPE 2 to begin recording. **PAUSE** ▮▮ on TAPE 1 automatically releases.

   Note: You can listen to the tape playing in TAPE 2 as you copy it. Set **MASTER VOLUME** to a comfortable level. The volume setting does not affect the recording level.
7. Press **STOP/EJECT** ■/⏏ on TAPE 1 to stop recording. **RECORD** ● and **PLAY** ► release.
8. Press **STOP/EJECT** ■/⏏ on TAPE 2 to stop playing the tape.

TROUBLESHOOTING

If you have problems operating your CDG Karaoke System, try these suggestions. If you still have problems, contact your local RadioShack store for assistance.

Problem	Possible Cause	Solution
The karaoke system does not work.	No power.	Make sure the power cord is properly plugged into an AC outlet.
	Power is on standby.	Make sure the POWER indicator is on.
A CD is loaded, but the CD/CDG player does not start.	The CD/CDG is loaded upside-down.	Reload the CD/CDG, label side up.
	The CD/CDG is dirty or defective.	Clean the CD/CDG and reload it, or try a different CD/CDG.
The CD/CDG's sound skips.	The CD/CDG is dirty or defective.	Clean the CD/CDG and reload it, or try a different CD/CDG.
	Moisture has condensed on the pickup lens.	Unplug the system and wait 1 hour for the moisture to evaporate.

CARE AND MAINTENANCE

Your Optimus CDG Karaoke System is an example of superior design and craftsmanship. The following suggestions will help you care for your karaoke system so you can enjoy it for years.

Keep the karaoke system dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.

Use and store the karaoke system only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.

Keep the karaoke system away from dust and dirt, which can cause premature wear of parts.

Handle the karaoke system gently and carefully. Dropping it can damage circuit boards and cases and can cause the karaoke system to work improperly.

Wipe the karaoke system with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the karaoke system.

Modifying or tampering with the karaoke system's internal components can cause a malfunction and might invalidate its warranty. If your karaoke system is not performing as it should, take it to your local RadioShack store for assistance.

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THE FCC WANTS YOU TO KNOW

This music system complies with the limits for a Class B digital device as specified in Part 15 of *FCC Rules*. These limits provide reasonable protection against radio and TV interference in a residential area. However, your system might cause TV or radio interference even when it is operating properly. To eliminate interference, you can try one or more of the following corrective measures:

- reorient or relocate the receiving antenna
- increase the distance between the system and the radio or TV
- use outlets on different electrical circuits for the system and the radio or TV

Consult your local RadioShack store if the problem still exists.

You must use shielded interface cables with this system.

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SPECIFICATIONS

Power Output (at 10% THD)	8 Watts per Channel
Track System	4 Track, Two Channel Stereo
Tape Speed	$1^{7}/_{8}$ ips
Recording System	AC Bias
Erasing System	AC
Wow and Flutter (WRMS)	Less Than 0.35%
Record/Play Frequency Response (at ±3 dB)	125–8000 Hz
Signal-To-Noise	40–60 dB
Dynamic Range	More Than 80 dB
Speaker	5-Inch Woofer/2-Inch Tweeter (3 Ohms)
Microphone (Monaural) Impedance	600 Ohm
Power Source	AC 120V, 60 Hz, 60W
Dimensions (HWD)	$20^{7}/_{10} \times 12^{4}/_{5} \times 9^{4}/_{5}$ Inches ($526 \times 325 \times 250$ mm)
Weight	22 lb 1 oz (10 kg)
Included Accessories	Microphone, Karaoke Cassette Tape, RCA Plug Cable, CDG Karaoke Disc

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

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Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, 200 Taylor Street, 6th Floor, Fort Worth, TX 76102

We Service What We Sell *04/99*

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